

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>IMH011WO</b>	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. <b>PCT/EP2004/014151</b>	International filing date (day/month/year) <b>13.12.2004</b>	Priority date (day/month/year) <b>22.12.2003</b>	
International Patent Classification (IPC) or national classification and IPC <b>A61F2/34</b>			
Applicant <b>PLUS ORTHOPEDICS AG</b>			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <b>5</b> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>
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<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>
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Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/EP2004/014151

## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 

This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
 
  - international search (Rule 12.3 and 23.1(b))
  - publication of the international application (Rule 12.4)
  - international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
 

the international application as originally filed/furnished

the description:
 

pages 1-8 as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the claims:
 

nos. 1-4 as originally filed/furnished

nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19

nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the drawings:
 

sheets 1/2-2/2 as originally filed/furnished

sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3.  The amendments have resulted in the cancellation of:
 

the description, pages \_\_\_\_\_

the claims, nos. \_\_\_\_\_

the drawings, sheets/figs \_\_\_\_\_

the sequence listing (*specify*): \_\_\_\_\_

any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 

the description, pages \_\_\_\_\_

the claims, nos. \_\_\_\_\_

the drawings, sheets/figs \_\_\_\_\_

the sequence listing (*specify*): \_\_\_\_\_

any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/EP2004/014151Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

Novelty (N)	Claims	1–4	YES
	Claims		NO
Inventive step (IS)	Claims	1–4	YES
	Claims		NO
Industrial applicability (IA)	Claims	1–4	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

1. This report makes reference to the following documents:

D1: DE 44 28 290 A1 (KUBEIN-MEESENBURG, DIETMAR, PROF. DR., 37547 KREIENSEN, DE; THEUSNER,) 15 February 1996 (1996-02-15)

D2: DE 43 35 931 A1 (CERASIV GMBH INNOVATIVES KERAMIK-ENGINEERING, 73207 PLOCHINGEN, DE) 27 April 1995 (1995-04-27)

D3: EP-A-0 655 230 (CERASIV GMBH INNOVATIVES KERAMIK-ENGINEERING) 31 May 1995 (1995-05-31)

D4: EP-A-0 694 294 (HERMANN, WERNER) 31 January 1996 (1996-01-31)

2. **D1**, as the closest prior art, discloses (see figure 12) a joint socket for a hip endoprosthesis, said joint socket having a socket shell 2 that can be implanted into the hipbone and a socket insert 4 for mounting the swivel head, the spherical outer surface of the socket insert (see column 8, lines 5 and 6) resting in a receiving area of the socket shell and being in contact with the inner surface of the receiving

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**Box No. V** **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

area along a contact line that is concentric to the rotational axis of the receiving area, and the inner surface of the receiving area narrowing in the region of this contact line toward the pole of the receiving area in such a way that the radius of curvature in this region is always larger than the spherical radius of the outer surface of the socket insert.

The subject matter of the present application differs from the joint socket according to **D1** in that the joint insert can be clamped in a self-locking manner in the receiving area.

The problem to be solved thereby can be regarded as that of providing a simple and freely alignable connection between the socket shell and the socket insert.

Although conical clamp connections for preventing the socket insert from twisting in or falling out of the socket shell are known, for example, from **D2**, a combination of **D1** and **D2** is not considered to be obvious because **D2** allows only a predetermined relative alignment between the socket shell and socket insert, not free alignment, owing to a conical contact surface between the socket shell and socket insert on either side.

The subject matter of claim 1 therefore meets the requirements of PCT Article 33(2) and 33(3).

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**Box No. V** **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

3. Claims 2 to 4 relate to special embodiments of the joint socket according to claim 1 and therefore also meet the requirements of PCT Article 33(2) and 33(3).